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ABSTRACT

The report documents some of the uses of computers and computer software in North Carolina adult basic skills and literacy education programs. It includes articles on: the role and activities of the North Carolina Literacy Resource Center; a hosiery industry initiative to provide computer-assisted vocational English-as-a-Second-Language training; programs promoting the computer laboratory as a learning environment for adults; a regional technology consortium; technology resources, including print, organizational, and online resources; software evaluation techniques for consumers; finding software reviews; services provided by voluntary literacy organizations; using laptop computers in creative ways; penetrating the mysteries of the Internet; and sources of technical assistance. (MSE) (Adjunct ERIC Clearinghouse on Literacy Education)

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ED 430 413

# Uses of Computer Technology in Adult Basic Skills / Literacy Programs:

## North Carolina Practice and Ideas from Other States

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Nancy Massey

NORTH CAROLINA LITERACY RESOURCE CENTER

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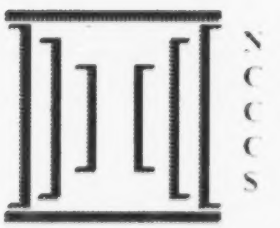
# *Uses of Computer Technology in Adult Basic Skills / Literacy Programs:*

## North Carolina Practice and Ideas from Other States

Nancy Massey
Resource / Information Specialist

DECEMBER 1998

NORTH CAROLINA
LITERACY
RESOURCE
CENTER



# *Uses of Computer Technology in Adult Basic Skills / Literacy Programs:*

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# *Introduction*

***Technology*** *(from the Greek)*

*"A branch of knowledge dealing with an applied science; the ways in which society provides itself with the material objects of its civilization."*

***--Dictionary of Essential English***

***Information technology***

*"Technology relating to the gathering, recording, and retrieving of information especially when this is done electronically."*

***--Heinemann English Dictionary***

*Advanced information technologies have created the potential for adults to have access to worlds of information in ways that scarcely could have been imagined a generation ago. Such technologies are particularly well-suited to supporting instruction that is learner-centered, problem-focused, discursive, and contextualized. In other words, emerging information technologies provide unprecedented opportunities to design environments that support self-directed learning for adults.*

*--Regie Stites*
*Creating Learning Environments for Adults:*
*The Role of Technology*
***NCAL Connections, Fall 1997***

For the last twenty years discussions of the advantages of technology for use in basic skills and literacy programs have flourished. ***Adult Literacy and New Technologies: Tools for a Lifetime***, published in 1993 by the Office of Technology Assessment, U.S. Congress provides an excellent summary of advantages on page 203. Advantages listed include:

- Recruiting and retaining learners
- Improving curriculum
- Meeting staff development challenges
- Enhancing assessment and evaluation
- Streamlining administration and management
- Augmenting funding and coordination.

This document seeks to demonstrate the efforts being made in North Carolina to serve adults in basic skills/literacy programs using computers and software. The editor wishes to thank the many individuals across the state and the country - both named and unnamed - who contributed to this publication.

Nancy Massey
Resource/Information Specialist
North Carolina Literacy Resource Center
North Carolina Community College System
December 1998

# *Aiming for Innovation*
# *North Carolina Literacy Resource Center*

**Mary Dunn Siedow**

## *Putting the Technology in Place*

Encouraging and advocating the use of technology in adult education has been a critical element of North Carolina Literacy Resource Center's work since the agency was established in 1994.

NC LRC immediately established an Internet presence and proposed use of the Internet as a means of delivering services well into the future. We secured Internet connections for staff, established a World Wide Web (WWW) site, and involved ourselves with the National Institute for Literacy's (NIFL) *Literacy Information aNd Communication System* (LINCS).

Acquisition of major computer and audiovisual equipment (multimedia projector and laptop computer) made it possible to achieve some of our information and dissemination plans. We use the server for Internet projects and electronic cataloging of NC LRC's library holdings. We use the projector to present Powerpoint and video programs explaining NC LRC and its services at meetings and conferences all over North Carolina and in several out-of-state locations.

## *NC LRC on the WWW*

During 1995 and 1996, Program Assistant LiBria Stephens worked closely with SAGRELTO Enterprises President Sarah Tourville to establish and then maintain NC LRC's presence on the Internet. After receiving considerable training from Sagrelto, LiBria assumed a key and expanded role in this area. During April, May and June 1997, Melody Schneider worked with Sarah Tourville to reorganize NC LRC's WWW site to make it more visually interesting and to enhance its offerings. We retained popular sections of the site and added several new features.

All NC LRC documents including newsletters, information briefs, issues in literacy, library bibliographies, and studies are available through the web site. There are links to other literacy providers nationally (National Institute for Literacy), regionally through the LINCS Hubs created by NIFL, and statewide. The WWW site is under constant study and frequent revision.

The site is now divided into three major sections:

- **NC LRC**, containing general information, publications, NC LRC's on-line catalog of library resources.
- **Database and Links**, containing the new database of basic skills / literacy programs, links to NC LRC and national literacy information, and "Literacy in North Carolina," NC LRC's often requested explanation of literacy statistics.
- **Teaching and Learning**, a new section containing lesson plans, links to recommended content sites,
- sections for teachers and learners to exchange ideas.

We are adding a section on the Workforce Investment Act (WIA) of 1998. Included will be the text of Title II (the Adult Education and Family Literacy Act), the North Carolina State Plan for Adult Basic Skills, and articles dealing with implementation of theWIA. We are also planning a mechanism for obtaining feedback on the North Carolina State Plan from practitioners across the state.

## *WWW Projects*

Electronic Catalog: As we began to develop a collection of resource materials, we also developed an electronic catalog to make library resources accessible through the World Wide Web. Patrons access the catalog by going to NC LRC's WWW address http://www.state.nc.us/NCLRC/home and following the link to "library resources." Our catalog was among the first searchable state literacy resource center catalogs on the World Wide Web. NIFL used our search form to design a WAIS index for searching the catalogs of all LINCS partners.

Data Base Development: NC LRC has maintained a directory of contact persons at the state's 58 community colleges, over 50 volunteer and community based organizations, and several public libraries since 1994. In early 1997, we began redesigning this directory - expanding it to include program information and entry procedures for each of the basic skills / literacy programs offered in community colleges, volunteer organizations, and libraries. The project involved:

- collecting extensive program information,
- developing an Access database, and
- designing interfaces so that the database could be accessed and searched on the Internet.

NC LRC contracted with SAGRELTO, Enterprises, Inc. to design the database and Internet presence. Resource / Information Specialist Nancy Massey collected program information from basic skills and literacy organizations throughout the state for inclusion in the database. Funding for the project came from two contracts - one with the Employment Security Commission, the other from the Department of Social Services. Staffs of these agencies and others like them will benefit from information in the database in years to come.

Teaching and Learning: An example of the idea exchange we want to promote through the NC LRC WWW site is the Workforce Development Communication Network's page. NC LRC provides the Network (operated by community college instructors with an interest in workforce education) space on the WWW site to present and provide information on issues affecting workforce literacy. Located in the ***NC Literacy on the WWW*** section, this portion of the WWW site advances the mission of the Workforce Development

Communication Network "to provide a framework that will allow community college workforce education providers to operate from a common base of timely knowledge and information."

## *Professional Development*

NC LRC encourages local basic skills / literacy programs to access the Internet, establish WWW "home pages," and use Internet based resources in designing lessons. To assist practitioners in becoming familiar with technology applications to adult literacy, NC LRC has conducted staff development workshops in our state and elsewhere. We have also presented sessions on technology applications at state and national conferences.

## *Adult Literacy Software Demonstrations*

In May 1996, Lynne Deese of Forsyth Technical Community College conducted two workshops on computer-aided individualized instruction at the College's West Campus in Winston-Salem. Representatives from 32 community colleges, volunteer and community-based organizations attended the workshops that were sponsored by NC LRC and coordinated by Nancy Massey.

## *Regional and National Collaborations*

### Literacy Information aNd Communication (LINCS) and Southern LINCS

The National Institute for Literacy's (NIFL) Literacy Information aNd Communication (LINCS) initiative connects state literacy resource centers with each other and with NIFL. LINCS operates through four regioal Hub partners – one of which, Southern LINCS – serves the Southeastern quarter of the United States. Our participation in LINCS and Southern LINCS has made a variety of technology projects available to NC instructors, teachers, and volunteers. These activities are described in a separate article ("Southern LINCS: A Regional Technology Consortium") in this publication.

**North Carolina Local Access Project (NC LAP):** In 1995-96, working in cooperation with the Southern Literacy Communications Consortium, North Carolina Literacy NC LRC conducted a Local Access Project (NC LAP) making it possible to connect eleven local literacy organizations to the Internet. These organizations include four community colleges (the College of the Albemarle, Blue Ridge Community College, Wilkes Community College, and Wake Technical Community College), one North Carolina Joblink Career Center (Southeastern Region), and six community based organizations (Literacy South, SCALE, Wake County Literacy Council, Durham County Literacy Council, MOTHEREAD, Inc., and Haywood County Literacy Council). Program Assistant LiBria Stephens coordinated and facilitated this project. Through the project, NC LRC provided external modems, Internet connections, and training sessions to NC LAP

Partners. In two of the community colleges, participation in this project resulted in installation of direct phone lines to Basic Skills programs for Internet access.

**Literacy Technology Mentoring Network:** Expanding on the vision of the National Institute for Literacy, NC LRC is developing a local information and communication system which links North Carolina literacy programs to resources and information needed to prepare for the future of adult learning. NC LRC formed a partnership with the National Center for Adult Literacy (NCAL) and the SouthEastern and Islands Region Technology in Education Consortium (SEIRTEC) to provide training for technology mentors.

NC LRC recruited a cadre of 21 participants, representing 14 organizations (six community colleges, one public library, four community-based organizations, two volunteer literacy councils, and one business) within the North Carolina literacy community. All had some Internet experience and were willing to become mentors for others. The organizations included Literacy South, MOTHEREAD, Inc., Glenwood Public Library, Wake Technical Community College (two campuses), Central Piedmont Community College, Southwestern Community College, Reading Connections, SCALE, Blue Ridge Community College, Blue Ridge Literacy Council, Haywood County Literacy Council, Wilkes Community College, SAGRELTO, and Forsyth Technical Community College. Christopher Hopey and Karl Rathmeyer of the National Center for Adult Literacy staff conducted technical training for mentors in Greensboro on June 3 and 4 and July 8, 1996.

**Internet Based Instruction Project:** As a member of Southern Literacy Communications Consortium (SLCC), NC LRC received a small grant ($5,000) in 1996-97 to increase use of Internet among literacy providers in the state NC LRC used this grant money to extend the work done in 1995-96 to include instructional applications of the Internet. Literacy specialist Melody Schneider worked as a temporary member of NC LRC's staff for three months during the Spring of 1997

- to explore instructional applications for the World Wide Web,
- to conduct staff development activities to teach instructors and volunteers to design lessons using WWW content, and
- to begin reorganization of NC LRC's WWW site to accommodate exchanges by teachers and learners

Instructors and volunteers (eleven individuals) from four community colleges (College of the Albemarle, Wake Technical Community College, Durham Technical Community College, Forsyth Technical Community College) and four volunteer literacy organizations (Haywood County Literacy Council, Durham County Literacy Council, Blue Ridge Literacy Council, Orange County Literacy Council) participated. Representatives attended two training sessions during which they explored the World Wide Web and developed draft lessons using WWW information. In all, this group represented fourteen North Carolina counties.

Paul Galchus, Student/Tutor Coordinator for the Haywood County Literacy Council, attended both sessions was a co-presenter with me in an Internet workshop at the NC Basic Skills / HRD Institute in Charlotte in July. Melody Schneider and I made a presentation on the project at the Adult Literacy and Technology conference in Boise, Idaho in August 1997.

# *Hosiery Talk*

"Nothing great was ever accomplished without enthusiasm."
--Ralph Waldo Emerson

Judging from both enthusiasm levels and results, great things are happening at Catawba Valley Community College (CVCC) in Hickory, North Carolina. CVCC personnel collaborated on two technology-based projects, ***Hosiery Talk*** and ***Hosiery ESL Training***, made possible with funds from two grants and conducted during 1997-98.

Funding came from a Section 353 grant through North Carolina Community College System and a grant from the National Institute for Standards and Technology in cooperation with the United States Department of Labor. The similarity of subject matter and involvement by the same industry made partnering of these grants an effective and efficient means to achieve the desired goals. Thus although there were two distinct grants with their own specific requirements, the two grants were combined. The following information was obtained from interviews and the excellent final report of the project.

Catawba County has long been home to the hosiery industry. Since its inception Catawba Valley Community College has offered its services to local industry. In recent years a low local unemployment rate and the need for a higher knowledge base than is typically representative of available employees have encouraged greater use of community college services by the hosiery industry. Founded in 1990, the Hosiery Technology Center at the community college works very closely with local industry and the Adult Basic Skills Department at CVCC to help with the enormous changes it takes to compete in a global environment today.

The hosiery industry in Catawba County has actively recruited a large number of non-English speaking employees. ***Hosiery Talk*** was a response to the industry's large population of non-English speaking employees' assimilation to the workplace. This special project resulted in a partnership among the Adult Basic Skills Department, the Hosiery Technology Center, the Fine Arts/Drama Department, the Media/ Telecommunication Specialist, and the Hosiery Talk project staff at Catawba Valley Community College and local hosiery mills. Project Director Sandra St. Louis and Assistant Project Director Melissa Truesdale worked under the direction of Claudia McLean, Basic Skills Education Programs Coordinator.

Technological changes in the hosiery industry as well as the high cost of equipment and materials require employees who can read well enough to decipher complex labels and instructions for equipment maintenance. Mistakes can be costly for business. This cost consciousness on the

part of industry has resulted in the realization that quality job training is indeed cost effective.

Sandra and Melissa worked very closely with plant personnel to pull together all the elements necessary for instruction. Having taught classes at local plants prior to the project, Sandra had already developed rapport with plant personnel so that her efforts were perceived as something desirable and helpful - rather than just creating additional work for involved plant workers and supervisors. The major task of the project was to create and pilot curricula, which address critical thinking and problem solving skills in the workplace. Employees must master traditional literacy skills, along with more complex computer and machine literacy to be employable in today's complex hosiery industry. ***Hosiery Talk*** is an organized, step-by-step approach to teaching job specific vocabulary and critical thinking skills. It includes documented procedures, suggested lesson plans, hands-on hosiery industry instruction kits, and a video showing real-world communication scenarios.

The six objectives of ***Hosiery Talk*** are listed below:

- facilitate group meetings/train staff,
- raise students' job specific knowledge,
- enable employees to voice ideas and have an impact on their workplace,
- enable employees to make decisions and act independently,
- show progress in employees' understanding, and
- facilitate replicability of project to other settings.

These objectives were accomplished through the following means:

- staff attendance at Hosiery 101 class and holding brain-storming sessions with hosiery representatives.
- production of a CD, ***Basic English for Hosiery***, (containing illustrations of hosiery specific terminology) for employee use,
- increasing students'/employees' confidence in speaking English was found also to increase their willingness to share information, concerns and questions with supervisors and co-workers,
- frequent viewing of the videotaped work situations enabled individuals to see correct decision/problem solving activities so that they could increase knowledge and act independently on the job,
- evaluations by employees and supervisors indicated progress made in employees' understanding and,
- replicability of the project is indicated by interest from other groups in doing a similar project, e.g., Department of Motor Vehicles.

"The science of industry and the mechanical or practical arts" is the definition of **technology** listed in ***The New Horizon Ladder Dictionary of the English Language***. The work done at CVCC certainly fits that definition. The bringing together of workplace and English as a Second Language (ESL) literacy concerns along with the use of computers and audiovisual devices make it remarkable.

***Hosiery Talk*** resulted in the production of both a compact disc, ***Basic English for Hosiery***, and a videotape for training purposes. The CD was produced under contract with Tim Songer and Interactive Knowledge of Charlotte, NC. The video was a collaboration involving the project

staff, the Fine Arts/ Drama Department, the Media/Telecommunication Specialist and the local hosiery mills. Actors in the video are students at the College and employees in local industry.

After the completion of the Special Project, cooperation and collaboration among College departments continues. Another Project partner was the Hosiery Technology Center (HTC) directed by Dan St. Louis. The Center houses a laboratory which contains actual machinery and equipment used in local hosiery mills. Formal classes in machine operation are held at the Center. With funds from the US Department of Labor, sophisticated equipment including computers, a CD burner, a digital camera and necessary software were purchased and are used by Center staff to produce training materials which can be customized for local businesses. As we mentioned earlier, the cost of sophisticated equipment and materials has convinced employers of the value of using high tech teaching methods for training as a means of avoiding costly mistakes. Because clear communication is essential for the proper operation of these plants, emphasis upon asking questions and being clear on instructions before proceeding is a high priority with management.

The Hosiery Technology Center has developed an outreach center at Randolph Technical Community College to enhance the services available to the hosiery industry in North Carolina. The HTC also sent Dan with the

Carolina Hosiery Association group that traveled to Italy to visit hosiery machine manufacturers and training centers in order to learn more about what is happening in hosiery on an international level.

The use of PowerPoint to customize training on specific topics is becoming an increasingly popular way to deliver training. The process involves determining needs, gathering information to be taught, taking digital pictures or short video clips, and inserting these into a PowerPoint presentation. This is then delivered to the employees at the facility. The training materials are then left on a CD for use by the company for new employees who come later.

Another partnership occurring at CVCC between the HTC and the Adult Basic Skills Department involves job placement and ESL training. If there is an ESL student looking for employment, he is referred to the HTC; and, if there is an employee the HTC encounters who needs English skills, he is referred to the ESL class. Many hosiery mills have an English as a Second Language class at their mills.

Acknowledgments:
This article would not have been possible without the kind and generous assistance of Claudia McLean, Sandra St. Louis, Dan St. Louis, and Tim Songer. Many thanks for their help.

# *The Computer Laboratory as a Learning Environment for Adults*

*Technology is rapidly changing the ways that people conduct business and schools provide educational opportunities. Despite the high costs, community colleges must keep current with new developments so that their students can compete in an aggressive marketplace.*

***ERIC Clearinghouse for Community Colleges***
***Information Bulletin, Summer 1998***

Community college basic skills programs in North Carolina are moving to incorporate computers into the curriculum. Most colleges have computer labs available for student use. Some of the more innovative and cutting edge programs are described in this article. Collaboration with other college departments and community organizations is a key feature in all truly effective programs. Sharing resources, especially professional expertise, is essential to optimize success.

## *Central Piedmont Community College E-Lit Program*

Serving the residents of Charlotte and Mecklenburg County, Central Piedmont Community College (CPCC) is the largest community college in North Carolina and serves almost 70,000 students every year. The college has a wide range of programs designed to serve the educational needs of all adults in its service area. Especially impressive is its commitment to Adult Basic Skills and Literacy Education. Classes are taught and computer access is possible at all four ABLE Centers and in scores of locations all over the county.

ABLE (Adult Basic Literacy Education) labs give students access to a wide range of computer programs including Plato, Skills Bank, Hartley, New Reader Bookstore, GED 2000, Pre-GED 2000, GED for the PC. Computers are located in YMCAs, low income housing projects, public libraries, and local prisons. But there was a desire to do more to help individuals who need literacy instruction to acquire computer skills at the same time. How could technology be creatively employed to address the problem of adult education in Charlotte and other communities in North Carolina?

Cynthia Johnston, Associate Dean for Community Development, wrote a proposal to the US Department of Education to fund Electronic Literacy or (E-Lit), a three-year study of the effectiveness of community networks and the Internet to provide basic skills instruction to

adults. The proposal was accepted. A federal grant of $493,188 was the result.

In the summer of 1997 classes began at the West Branch Library and Grier Heights Housing Development. In the spring of 1998, the Dalton Village and Johnson C. Smith sites opened. Each of these sites has ten computers available to students working toward a GED. These students have access to PLATO instructional software and are guided by an instructor who provides software training and additional subject-matter reinforcement. Beginning in October 1998, thirty personal computers will be installed in students' homes. These students will be trained in both e-mail and PLATO use. PLATO software will be available to these students through the Internet. Charlotte's Web is providing the technical assistance and organizing a virtual buddy system. Each student will be matched with a virtual buddy who will provide technical assistance through e-mail, while the CPCC lead instructor, Linda Burns, provides both encouragement and instructional assistance via e-mail and telephone. The learning gains and retention rate of participating students will be compared to lab students in order to evaluate new instructional tools and methods.

During the last decade, the use of computers on worksites – restaurants, shops, offices, manufacturing plants, virtually everywhere – has proliferated at an incredible rate. Inability to use computers competently is a serious obstacle to job advancement. Instructors realize that employers want employees who are literate and also have computer skills. By teaching with the computer and helping students learn to access information via the Internet, Ms. Burns believes that students can pick up both sets of skills.

The project will serve as a national model for community networks for basic skills instruction. Central Piedmont is working with other area agencies including Charlotte's Web, the Charlotte Housing Authority, the public library, and Johnson C. Smith University to provide instruction at sites closer to the people who need the instruction. Charlotte's Web is a community network, which provides public access to computer terminals at over 75 sites. The hope is that instruction can be spread to other neighborhood centers, libraries, and public facilities. Dr. Johnston believes that collaboration with other agencies is making E-Lit successful. Establishing convenient locations and hours for students without transportation are two ways the community network is helping.

## *Fayetteville Technical Community College's Workforce Preparedness Program*

A North Carolina nominee for the 1998 Secretary's Award for Outstanding Adult Education and Literacy Programs, Fayetteville Tech's Workforce Preparedness Program is a key component of the College's Basic Skills program. Carrie M. Heffney, Director, Basic Skills/HRD Programs, supervises the activities of the Workforce Preparedness Program. Located in Cumberland County, North Carolina's fourth largest metropolitan area, FTCC has the goal of improving and expanding the delivery of literacy services to adults in Cumberland County. Implementation of innovative technology-based learning strategies is a high priority. FTCC has taken the initiative of providing students with the latest in technologically advanced training.

Equipped with state-of-the-art computer hardware and cutting-edge educational software, and linked to the Internet, the lab provides classes taught by faculty with both education and

business backgrounds. The program is specifically designed to provide enhanced training opportunities to the employees of local businesses and industries. Outreach to those adults in the general population who seek to upgrade job-related skills is a priority.

Attractive features of the program include expanded class meeting times, on-site assessment, counselling and placement with individual, small group and computer-assisted instruction. Classes are conducted both on-site in local businesses and industries and in the Workforce Preparedness Center (WPC), housed in the new Continuing Education Center on main campus.

This integrated approach of providing workplace specific training allows the college to meet the differing educational needs of adult workers whose individual learning styles vary, and for whom the demands of the job and/or family quite often require flexible class scheduling. The unique WPC approach has been used successfully with participants in WorkFirst, North Carolina's welfare reform program, to deliver accelerated basic skills instruction to WorkFirst participants in Cumberland County. Both WorkFirst and HRD students may choose to enroll in classes whose focus is computer-assisted instruction. The Basic Skills Curriculum Specialist works with program staff to procure suitable materials including computer software/courseware and to assist staff in developing and producing customized materials, often drawing from resources available on the Internet.

Instruction is "work focused" and tailored to the needs of the employer and employee. Staff encourages and responds to employer/manager requests for job-related instruction and materials. Aiming to teach and enhance employment-related skills, the program incorporates "real world" materials such as company-produced safety manuals into the curriculum. These materials are used to teach reading comprehension and spelling skills as well as safety awareness. Thus the Workforce Preparedness Center offers instruction in a "math center," a "reading and writing center," a "GED center," and a "video center."

Persons with special physical requirements are able to gain access to courses in the Workforce Preparedness Center. For students whose physical requirements make attending a "traditional class" difficult or impossible, the College offers Basic Skills Correspondence courses, and since 1997, Basic Skills Internet courses. The latter utilizes TRO PLATO courses and includes an array of workplace-specific lessons. Both the correspondence and the Internet offerings include Adult Basic Education and GED studies and are open to the general public.

## *Forsyth Technical Community College's Bolton Street Campus Instruction Lab*

The West Campus of Forsyth Technical Community College located on Bolton Street in Winston-Salem houses the Basic Skills Department. A. Lynne Deese, Program Coordinator for Compensatory Education, supervises the Instruction Lab, which is used by adult students who wish to improve their literacy skills. Students using the lab may be enrolled in any of the following areas: adult high school, basic skills courses, compensatory education programs, English as a Second Language, or GED completion. Anyone with a handicapping condition is especially welcome to use the lab.

The lab has a well-deserved reputation for welcoming student with handicapping

conditions. These adults with disabilities learn to improve or master the skills needed to function in the community and the workplace as independently as possible.

Without the advantage of a large budget, the school staff was able to create an instructional lab. The lab utilizes a multi-modal approach to learning. It uses equipment and materials that appeal to various learning styles such as computers, laser disks, audio, and video programs. The instructional lab is home to several courses: WorkSearch, Directed Teaching, ESL Instructional Lab, Compensatory Education Mathematics, and ESL Instructional Lab. One day the class and students will be working to improve their academic skills enabling them to pass the GED or competency tests, and the next day students will be working on the academic skills necessary to secure the job of their dreams. Some materials, software, and equipment have been purchased through grants and community college funding. Additionally by taking advantage of surplus older computers and searching for freeware and shareware online, Ms. Deese has been able to offer a wide variety of software programs for student use. She enhanced the selection by always being on the look out for bargains in computer centers and bookstores. Not afraid to spend a few dollars of her own, Ms. Deese has added to resources available to her students. Information on software has been entered into the "Instruction Lab Software Database." Relevant information includes the name of the program, source, compatibility, location, subject area, level, description, and instructions for use.
The good news is the fact that much new state of the art equipment resides in the Basic Skills Program. A recent acquisition is a Gateway Destination computer with 4 gigabytes of memory. This machine has a zip drive along with CD and DVD drives and a 32-inch monitor – making it a wonderful presentation machine for large groups and very helpful for students with visual handicaps. Other bells and whistles include an infrared device, which enables a presenter to manipulate the equipment from across the room and a digital camera for high quality photographs.

A printer and scanner are assigned to the Gateway computer making it possible to extend its use in many exciting ways. Working with a student unable to leave his home, teachers are able to scan his lessons into the computer. The lessons are copied onto a disk. The teacher makes corrections and suggestions and then emails them to the student. What an excellent example of distance education!

Another exciting approach to documenting the work done by students involves helping them create electronic portfolios. Working with the flat bed scanner, digitall cameras and the computer, staff helps students create electronic portfolios to demonstrate skills gained over the period of a semester.

Ms. Deese has acquired more sophisticated programs to make the computer more useful to visually-challenged and hearing-impaired students. These programs include Zoomtext produced by Ai Squared, a leader in low vision software. The most prominent features of Zoomtext allow for magnification and voicing of text. The anticipated new features will include the ability to scan in text from printed material and have the computer read it aloud.

## *Southern LINCS: A Regional Technology Consortium*

The National Institute for Literacy's (NIFL) Literacy Information aNd Communication System (LINCS) initiative connects state literacy resource centers with each other and with NIFL, thus affording practitioners with a single point of access to all of the information available through state literacy resource centers. Comprehensive information about NIFL and LINCS may be found on the World Wide Web at **http://novel.nifl.gov**.

North Carolina Literacy Resource Center's participation in LINCS has made a variety of technology projects available to North Carolina instructors, teachers, and volunteers. Detailed information on these projects can be found in the article, "Aiming for Innovation: North Carolina Literacy Resource Center."

On the national level, NC LRC's Director Mary Siedow served on a committee to develop an adult literacy thesaurus that is now used for WAIS searches of resource collections. She now serves on a committee to develop selection criteria for adding resources to collections.

The four LINCS Regional Partners are: Eastern LINCS, Southern LINCS, Midwest LINCS, and Western/Pacific LINCS. With the funding of four LINCS regional partners, the National Institute for Literacy has ensured that state literacy resource centers (SLRCs) in every state and territory in the nation can gain the technological capacity to produce and share electronic information for literacy. The four regional LINCS partners are vital components of NIFL's continuing effort to enhance the capacity of the field through a strong national infrastructure for electronic communications and information exchange.

North Carolina participates with 13 other Southern and Southwestern states in Southern LINCS, the regional technology consortium serving this quarter of the country. Southern LINCS is a collaborative, technology-based system for sharing adult learning and literacy resources.

Southern LINCS is located at the Center for Literacy Studies at the University of Tennessee. The website address is **http://hub2.coe.utk.edu/** Funded by the National Institute for Literacy, Southern LINCS is connecting adult education and literacy programs in the southern region with resources for adult learning, instruction, staff development, administration, and research. The fourteen participating states are Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. Other regional partners include the National Center for Family Literacy in Kentucky, Georgia Institute of Technology's Lifelong Learning Network, and Florida State University's Educational Services Program.

NORTH CAROLINA LITERACY RESOURCE CENTER

# Technology Bibliography
## December 1998

### Teacher Resources

*ALTIN-North Carolina TRAINING* cosponsored by National Center on Adult Literacy, Southeast and Islands Regional Education Consortium, and North Carolina Literacy Resource Center. (June & July 1996) (NCAL Practice Guide) Philadelphia, PA: National Center on Adult Literacy.

Compiled for training conducted in Greensboro, NC in June and July 1996, this volume contains the following documents produced by the National Center on Adult Literacy:

Making Sense of Technology Terminology for Adult Literacy: A Glossary and Annotated Bibliography
Technology Planning for Adult Literacy
Funding Technology in Adult Literacy
Making the Right Choice: Evaluating Computer Software and Hardware for Adult Literacy Instruction
Joining the On-Line Community: An Introduction for Adult Literacy.

These materials provide excellent background reading.

*Computers in the Mix: Technology in Adult Literacy. Literacy Harvest: The Journal of the Literacy Assistance Center*, Summer 1996 (Volume 5, Number 1) New York, NY: Literacy Assistance Center.

In this issue of *Literacy Harvest*, authors examine the impact of technology in adult literacy classrooms, the pressing need for access by adult learners to computers and the Internet, planning for technology in ABE programs, and the process of learning about technology in an intensive institute for practitioners.

*Driver Education for the Information Highway* by David J. Rosen, (February 1998) (Literacy Leader Fellowship Program Reports Volume II, Number 2) Washington, DC: National Institute for Literacy.

This report provides information on how adult learners and practitioners use the Internet based on a survey and study conducted in winter and spring of 1996. Of special interests are chapters offering a staff development model for adult education practitioners and an annotated "webliography" of resources. Author Rosen is Director of Boston's Adult Literacy Resource Institute and moderates the National Literacy Advocates listserv.

*E-Mail for English Teaching* by Mark Warschauer. (1995) Alexandria, VA: Teachers of English to Speakers of Other Languages, Inc.

Based on the author's extensive experience with computer-assisted language learning, the book teaches you how to use state-of-the-art tools to access teaching resources and materials, enrich classroom activities with e-mail, promote highly motivating international exchanges, and train your students to find their own learning materials.

*Hands-On Internet for Windows* by Neil J. Salkind. (1996) Danvers, MA: Boyd & Fraser Publishing Company.

In eight easy-to-understand lessons, this book presents a practical tour of the Internet covering topics such as the history and use of the Internet; using Netscape; basic concepts including conecting, protocol addresses, and selecting a commercial provider. While some information may be dated, there is still much of use.

*Instructional Technology Resource Guide for Staff Development* by Donna Miller-Parker (1993) Washington, DC: US Department of Education, Office of Vocational and Adult Education, Division of Adult Education and Literacy.



NC LRC 200 West Jones Street Raleigh, NC 27603 919-733-7051

This staff development guide is an outgrowth of the concern about the use of appropriate technologies for appropriate purposes in adult education. The guide is intended to provide some background and guidelines for creating effectual staff development programs for the effective use of technology in ABE programs.

***Integrating Technology into the ABE/GED Curriculum***. (April 23, 1998) Alexandria, VA: PBS Adult Learning Service, LiteracyLink (ITAG000). (Videotape)

For those practitioners who were unable to participate in the April 23, 1998 videoconference conducted by PBS LiteracyLink, this videotape will enable them to view the panel discussions and specially produced video segments of adult education classrooms. Adult educators interested in learning about integrating computer technology into instruction should be able to glean much valuable information.

***The Internet Guide for English Language Teachers*** by Dave Sperling. (1997) Upper Saddle River, NJ: Prentice Hall Regents.

Dave Sperling, creator of the innovative "Dave's ESL Cafe" Web site, has searched out the best-of-the-best information for English teachers. This practical easy-to-use guide will help you navigate the "information superhighway" like a pro.

***Keystrokes to Literacy: Using the Computer as a Learning Tool for Adult Beginning Readers*** by Antonia Stone. (1991) Lincolnwood, IL: National Textbook Company.

This is a practical, friendly manual that enables you to help adult beginning readers acquire both computer knowledge and literacy. Keystrokes to Literacy is an invaluable guide to help adult learners utilize the computer as a literacy tool and gain confidence in their abilities to master the computer for use beyond the learning environment.

***Planning and Funding Technology for Adult Literacy*** (1998) Alexandria, VA: PBS Adult Learning Service, LiteracyLink (PFTA000)

This resource is a videotape of the first professional development event from the PBS/LiteracyLink Project which involved practitioners from over 400 sites. During the 2-hour videoconference much practical information on how to develop a plan to incorporate technology into local programs is provided. Among programatic issues discussed are the inclusion of technology, the importance of staff development, and finding the funds to make it all happen.

***Shifting Paradigms: Technology and Adult Education*** by John Fleischman and Dennis Porter. (Monograph Number One, July 1993) Washington, DC: National Adult Education Professional Development Consortium, Inc.

The purpose of this monograph is to give adult educators an overview of the many instructional and administrative technologies available to them. Developed at the request of the National Adult Education Professional Development Consortium, the document is designed to provide information to adult education leaders regarding current and future trends.

***The Teacher's Complete & Easy Guide to the Internet*** by Ann Heide & Linda Stilborne. (1996) Toronto, ON Trifolium Books, Inc.

The authors explain the Internet at an introductory level and provide lots of ideas for using it in the classroom. Targeted at the classroom teacher, the book provides practical tips and projects that can be used in the classroom. An excellent appendix includes curriculum links to online resources.

***Technology Assisted Teaching Techniques*** by Janie Duncan. (Resource Handbook Number 5) (1987) Brattleboro, VT: Pro Lingua Associates.

Although this slim volume is over ten years old, it contains many simple helpful techniques for using technology in the classroom. The author's goals are to aid novice users of technology by presenting clear and

useful techniques, to serve experienced technology users by showing them how to combine and expand techniques, and to assist teacher trainers by providing a format for step-by-step procedures.

***Technology Guide Developed by West Virginia ABE Practitioners for West Virginia ABE Practitioners.*** (1996) Summersville, WV: Division of Technical and Adult Education Services, West Virginia Department of Education. (Funded by Section 353 of the Adult Education Act)

This guide was designed to provide ABE practitioners with an overview of selected software packages which will in turn enable them to make conscientious decisions as to what software packages will best meet their individual program and student needs. The document was **created for** ABE practitioners in West Virginia **by** ABE practitioners in West Virginia.

## *Teachers and Learners*

***Creating Lessons Using the Internet & Developing Internet Training for Teachers and Volunteers*** by Melody Schneider. (June 13 and 18, 1997) Raleigh, NC: NC Literacy Resource Center.

This set of materials was a major component in two trainings conducted for community college instructors and volunteer literacy council staff at NC Literacy Resource Center in June 1997. Other related materials are available on NC LRC's website.

***Hosiery Talk: Catawba Valley Community College, 1997-1998 Final Report*** by Claudia McLean. (1998) Hickory, NC: Catawba Valley Community College. (Includes ***Hosiery Talk Communications Video***, The Hosiery Center of North Carolina, 22 minutes).

***Hosiery Talk*** is a multi-faceted tool to assist North Carolina's hosiery industry and its employees in coping with an increasingly technical workplace. Funded with a Section 353 grant through the North Carolina Community College System, the project resulted in a series of lesson plans designed to teach workplace specific skills (contained in the final project report) and a video focusing on communication skills.

***Teaching and Learning with Internet-based Resources*** by Susan Cowles. (1997) (Literacy Leader Fellowship Program Reports Volume III, Number 2) Washington, DC: National Institute for Literacy.

Created by Susan Cowles, this clever and imaginative short course on the Internet is designed to make using the information superhighway as informative and enjoyable as possible. Comparing learning to use the Internet to running a marathon, Ms. Cowles continues the analogy with chapter headings named *Warming Up*, *Starting Block*, *Scenery*, *Catching Your Stride*, and *The Press Conference*.

***Using the Internet as an Instructional Tool*** (no date). Albany, NY: The University of the State of New York, The State Education Department, Office of Workforce Preparation and Continuing Education.

Funded under Section 353 of the Adult Education Act, this document was produced by the staff of the Hudson River Center for Program Development, Inc. Easy to use, the spiral bound manual contains sample lessons, background information on the Internet, and a glossary.

## *Theory and Policy*

***Adult Learning and the Internet*** edited by Brad Cahoon. (New Directions for Adult and Continuing Education, Number 78) (Summer 1998) San Francisco, CA: Jossey-Bass Publishers.

The purpose of this volume is to explore the effects of the Internet on adult learning - both as that learning is facilitated through formal instruction and as it occurs spontaneously in the experiences of individuals and groups - and to provide guidance to adult and continuing educators searching for ways to use the Internet more effectively in their practice.

*Adult Literacy and New Technologies: Tools for a Lifetime*. Office of Technology Assessment. US Congress. (July 1993) Washington, DC: US Government Printing Office.

This study was conducted in order to assess the current and potential impact of technologies for literacy. It begins by examining America's "literacy problem" and documenting the large number of Americans in need and concludes by sketching a future vision in which better applications of technology make it possible to serve more adults and enable them to learn anyplace, anytime.

*Adult Literacy, Technology, and Public Policy: An Analysis of the Southeastern United States Region* by Jennifer Elmore (NCAL Policy Brief PB98-01) (May 1998) Philadelphia, PA: University of Pennsylvania.

This policy brief, based on a series of interviews with state adult literacy directors and staff members, identifies the variety of ways in which states and islands in the SouthEast and Islands Regional Technology in Education Consortium (SEIR*TEC) region are planning for, funding, and using technology in adult learning contexts.

*Assessing Lifelong Learning Technology (ALL-Tech): A Guide for Choosing and Using Technology for Adult Learning* by Regie Stites. (NCAL Report PG89-01) (January 1998) Philadelphia, PA: National Center on Adult Literacy.

The report begins with a discussion of the nature of adult (as opposed to childhood) learning and the potential roles that technology can play in helping to create learning environments that are ideally suited to the needs and interests of adult learners. The conclusion highlights some of the factors that may facilitate or obstruct the effective application of technology to adult learning.

*Computers and Community: Teaching Composition in the Twenty-first Century* edited by Carolyn Handa. (1990) Portsmouth, NH: Boynton/Cook/Heinemann.

*Computers and Community* was written in response to the common fear that incorporating computers into the classroom would damage the social interaction among students. The contributors to the book share the point of view that the computer is a powerful tool that can create a strong sense of community among both students and instructors.

*Literacy and Machines: An Overview of the Use of Technology in Adult Literacy Programs* by Terilyn C. Turner. (NCAL Technical Report TR93-3) (April 1993) Philadelphia, PA: National Center on Adult Literacy.

Ms. Turner's paper addresses the issues of how decision makers can sort through claims made by vendors and how resources can be found to purchase technology. Giving a brief overview of the history of technology use in adult literacy programs, the document also provides a framework for incorporating technology into the curriculum.

*Literacy and Computers: The Complications of Teaching and Learning with Technology* edited by Cynthia L. Selfe and Susan Hilligoss. (1994) New York, NY: The Modern Language Association of America.

With a minimum of jargon, this collection of essays discusses computer-related issues within several larger contexts: the politics, social implications, and economics of literacy education; the roles of authors and readers; the nature of interpretation and subjectivity; and the ways in which human beings construct meaning.

*Re-Imagining Computers and Composition: Teaching and Research in the Virtual Age* edited by Gail E. Hawisher and Paul LeBlanc. (1992) Portsmouth, NH: Boynton/Cook Publishers.

The fifteen essays contained in this collection bring the reader into the technological future. The contributors challenge the pedagogical and economic viability of the traditional classroom, describe new roles for writing teachers as technology critics, explore the relationship of chaos theory and rhetoric, link software design to research and teaching, and much more.

## *North Carolina Literacy Resource Center*
## *National / Regional Literacy Links*

### HELPFUL HINT: Explore Links!

We urge you to explore the links on various websites. This is an amazing technique for getting to interesting – even fascinating sites. One feature of NC LRC's WWW site is links to national, state, and local literacy sites. Reprinted here are the national and regional links as they appear on the WWWsite in January 1999.

| | |
|---|---|
| The National Institute for Literacy (NIFL<br>http://novel.nifl.gov<br><br>Connect to the Regions through NIFL<br>Eastern LINCS, Region I<br>Southern LINCS, Region II<br>Midwest LINCS, Region III<br>Western LINCS, Region IV | Literacy Information and Communication System (LINCS) is the center for information about literacy resources across the nation. The National Institute for Literacy's World Wide Web server provides links to the AskERIC virtual library, the Library of Congress online catalog, and other literacy related sites. A visit to this site is a must for those interested in literacy. Through it's Technology Hub Project, NIFL supports four regional LINCS sites. |
| National Center on Adult Literacy<br>http://litserver.literacy.upenn.edu | The National Center on Adult Literacy web server and the NCAL/ILI Gopher are filled with information and pointers to other sites of interest to the literacy community. |
| The National Center for the Study of Adult Learning and Literacy (NCSALL)<br>http://hugse1.harvard.edu/~ncsall | The goal of NCSALL is to help the field of adult basic education define a comprehensive research agenda; to pursue basic and applied research under that agenda; to build partnerships between researchers and practitioners; and to disseminate research and best practices to practitioners, scholars, and policy makers. |
| The Institute for the Study of Adult Literacy<br>http://www.ed.psu.edu/isal | The Institute for the Study of Adult Literacy web site is filled with information of interest to adult literacy practitioners in the field. |
| Laubach Literacy Action (LLA)<br>http://www.laubach.org<br><br>Literacy Volunteers of America (VA)<br>http://www.literacyvolunteers.org | Laubach Literacy Action and Literacy Volunteers of America are the nation's two major volunteer literacy organizations. Both offer a range of services, including program management, tutor training, and curriculum to their member organizations. |

| | |
|---|---|
| Student Coalition for Action in Literacy Education<br>http://www.unc.edu/depts/scale | SCALE is a national organization that mobilizes college students to address the literacy needs of this country through partnership with community agencies, service organizations, new readers, students, faculty, and administrators. |
| National Clearinghouse for ESL Literacy (NCLE)<br>http://www.cal.org/ncle | An adjunct ERIC Clearinghouse at the Center for Applied Linguistics, the National Clearinghouse for ESL Literacy Education is the only national clearinghouse focusing on literacy education – including family literacy, workplace literacy, and native language literacy for adults and out-of-school youth learning English as a second language |
| Comprehensive Adult Student Assessment System (CASAS)<br>http://www.casas.org | The Comprehensive Adult Student Assessment System (CASAS) provides competency based curriculum management, assessment, and evaluation systems to education and training programs. The CASAS WWW site contains information about the CASAS system and its applications to program management and staff development. The CASAS WWW site houses the "Synthetic Estimates of Adult Literacy" developed at Portland State University. |
| PBS LiteracyLink<br>http://www.pbs.org/adultlearning/literacy | LiteracyLink is an integrated instructional system of video and computer based technologies to address basic skills and especially high school completion issues. Its WWW site encourages exchange of views about WWW sites through "Peerlink," connects learners and teachers to information about the GED, and provides links to a wide range of literacy WWW sites. |
| Yahoo! Literacy<br>http://www.yahoo.com/education/literacy | This is Yahoo's list of Literacy Links. |

# *TIPS FOR SMART SOFTWARE CONSUMERS*

**Kit Bieschke-Baker**

**(Reprinted with Permission from Project Software 1998)**

Prior to beginning the search for appropriate software for your program, it is important to assess the independent reading level and the age level (interest level) of the students who will be using the computer programs. Also, you should identify the content areas most important for your curriculum. This "needs assessment" should enable you to match particular computer programs with the specific needs of your classes.

We all need to be smart computer software consumers! Below are tips and questions to consider prior to purchasing software for your program.

1. The teacher and the student should always preview the program before purchasing it. Be sure to have evaluation forms at each computer, so the students can record their comments. (Sample forms are available on the website.)

2. Ask the company representative to provide you with the names and phone numbers of teachers who have used the program. (Try to find a teacher with a classroom similar to yours. Use the "needs assessment" information.)

3. Does the computer program include back-up disks?

4. Does the company offer support services, such as a toll-free number for help with a computer program?

5. Does the program include a management system, which tracks and keeps records of student achievement and generates reports?

6. Determine the type of program you are buying. Is it designed for drill and practice, tutorial, or simulation? Does it fit your needs in the classroom?

7. Be sure that the readability level and interest level of the program correlate to your "needs assessment." (The company should have the readability level information available for you.)

8. Ask about the company's policy concerning replacement disks or CDs.

9. Ask for a list of correlations to specific skill objectives. Many companies have correlated their program objectives to the TABE or practice GED tests.

10. Ask about a "trade-in-policy." Many companies allow you to trade in your old programs for a credit towards a more comprehensive program or for a network system.

11. Does the program include a teacher's manual with descriptions of the programs, operational procedures, and student progress sheets that can be duplicated?

12. Is "inservice training" for the teachers and aides included in the price of the program, or is there an additional charge?

# *Criteria for Evaluating Software*
# *Northwest Regional Literacy Resource Center*

### Description of Content

The description of the content describes the exercises and activities presented in the computer program. The software reviewers believe there are a number of other factors to consider when looking at the content. Therefore, when the reviewers wrote about the content they also considered the following questions:

Is the content accurate?
Is there enough depth to the content?
Is the content age and audience appropriate?
Does the program appeal to a variety of learning styles?
Is the user engaged in a variety of tasks such as listen and see, write and see, read and see?
Are the graphics culturally-sensitive, appropriate to the context and adult appropriate?
Is the screen easy to read?
If speech is used, is it clear native speech?

## Navigation and Structure

Because the overall usefulness of the program is affected by its ease of use, the reviewers considered aspects such as clear directions and appropriate feedback. The reviewers described the navigation and structure of the program as they carefully thought about the following questions:

Are clear, on-screen directions provided?
Does the reading level of the directions match the reading level of the program?
Is it easy to enter, move around, and exit the program?
Is there on-screen help?
Can the student exit the program at any point?
Does the program provide appropriate, positive feedback?
Does the program provide immediate feedback?
Does the program provide useful (includes explanations) feedback?
Does the program provide adequate practice?
Do the exercises reinforce the skills appropriately and adequately?
Does the program move the learner to different levels based on performance (branching)?
If the program is repeated, are the exercises different from the first experience (randomization of exercises)?
Does the program have a management system?
Does the program have a diagnostic test?

**Note:** This information is found on the Northwest Regional Literacy Resource Center's website at http://literacynet.org/nwrlrc/buyersguide/home.html

In the southern region, LINCS is building the capacity of practitioners and adult learners to develop and use technology-based resources and is expanding communication links among members of the literacy community. Several NC LRC staff members have participated in LINCS training. Mary Siedow is a member of the current advisory board for Southern LINCS. Our participation in LINCS has provided us with opportunities to design and implement a number of technology based projects.

G'Anne Sparks, a longtime volunteer with Blue Ridge Literacy Council in Hendersonville, represented North Carolina in the Consortium of End Users. A recent project, the Consortium of End Users, was aimed at forming a multi-state group of practitioners from the southern region who would contribute to Southern LINCS. Practitioners in each state were asked to contribute in the following ways: by exploring LINCS and responding to monthly feedback questions, working with a multi-state group of teachers and a LINCS staff person online to develop a Web-based guide to use LINCS, and telling other practitioners about LINCS. G'Anne's article about her experience, ***Valuable Literacy Resource Available***, appears on the Southern LINCS website at **http://hub2.coe.utk.edu/endusers/ganne_article.html**

Providing information on material and information resources is a service of all four Hubs. Eight special collections have been or will be produced by the four regional LINCS projects. Special collections will bring to one focal point -- the best Web-based resources on a particular topic.

The Southern LINCS Consortium is maintaining both Correctional Education Resources and Workforce Education Resources collections. The Correctional Education Resources collection of pages on correctional education resources resulted from work done by Center for Literacy Studies Librarian William Hawk as part of an internship at the National Institute for Literacy. The Workforce Education Resources site is a collection of Web-accessible and other materials focused on resources related to basic skills instruction and the administration of basic skills programs, both in places of work and in other instructional centers preparing individuals for work.

The purpose behind these special collections is to create a single access point to a comprehensive collection of resources on specific topice of interest to practitioners. These resources include information on associations and organizations, learning materials, research, policy and model programs. An added feature is the collection of materials generated by practitioners and others in the field of workforce education.

The other six topics are Adult ESL Education, Health and Literacy Resources, Adult Numeracy, Family Literacy, and Science and Technology. Responsibility for these sites rests with the other regional hubs.

Among other exciting projects being conducted by Southern LINCS is a workplace project with GTE. A $50,000 grant to the regional hub will result in fieldwork being done in individual states including North Carolina.

Each state represented by Southern LINCS is producing worthwhile and productive work. Two especially noteworthy programs appear in Arkansas and Louisiana.

(Continued on page 31)

## *Software Concerns*

***Fearon New School Dictionary*** defines ***software*** as "a collective term for programs, lists, operating instructions, and other documentation necessary for a computer to function." The definition of ***hardware*** is simply "computer and audiovisual equipment."

These definitions sound so simple and logical. Why then do we hear so many horror stories about incompatibility of software and hardware and the generally high frustration levels of many adults having their first encounter with a computer?

Fear of the unknown--fear that one will somehow break the machine or mess up the data--is a major concern for many adults. Often computer novices have had no or poor instruction in the use of software. Not everyone has a natural intuitive or logical approach enabling him or her to penetrate the mysteries of various programs without help from another human being.

But with appropriate training, virtually anyone can learn to use computers for work, family or personal purposes. Sound instruction and availability of help from instructors is key to assisting adults in their mastery of computer use. A sign posted above Project Software Coordinator Kit Bieschke-Baker's desk at the Washington County Skills Center in Abingdon, Virginia says it so well: "The hope lies not with the technology but with the knowledgeable teachers who effectively use the technology."

Practitioners in the field of basic skills / adult literacy are using a wide variety of software programs in the area of adult basic education, adult high school, compensatory education, English as a Second Language, human resource development, and GED completion.

Where can the instructor turn for help with software selection? First and foremost, to colleagues -- both locally and across the country. Often a phone call to a neighboring institution can provide an opportunity to learn what resources others are using. With Internet access, email, and listservs, one can access a world of information and resources.

## *Local and State Resources*

The instructor's or tutor's own institution is the first place to look for help. Colleagues on campus or at volunteer or community based literacy organization are excellent resources.

Networking with individuals at neighboring institutions and organizations make possible the sharing information. Attendance at conferences and meetings provides an opportunity to gather information. At larger conferences vendor demonstations provide a means to see what a piece of software can do.

NC Literacy Resource Center has begun collecting information on software holdings of literacy institutions in North Carolina. Our aim is to have information to share when we are asked for help evaluating software programs for purchase. We invite literacy organizations to send information to be added to our growing collection.

NC LRC receives requests for information about software programs. The Center staff maintains a file of vendor catalogs, welcomes demonstrations by software vendors, and visits exhibits at conferences to see what is on the market. We share information found in publications by other literacy organizations across the country.

Reviewing software is a task the staff has considered. To do this we need people to review and fieldtest software. If you are interested in working with us to produce software reviews, please call North Carolina Literacy Resource Center at 919-733-7051 extension 501.

## *Resources in Other States*

We have discovered two excellent sources of software reviews and ourselves currently use the fine work being produced by Northwest Regional Literacy Resource Center in Washington State and Project Software in Virginia. Links to these websites appear on NC LRC's website located at **http://www.nclrc.state.nc.us/NCLRC/home/**

One of the many advantages of Internet access is the ability to engage in networking, collaboration, and sharing of resources with individuals and organizations all over the country and the world. Two especially valuable resources for software evaluation are the Northwest Regional Literacy Resource Center's online ***Software Buyer's Guide*** and ***Project Software*** coordinated from the Washington County Skill Center (Abingdon, VA) and accessible on the Virginia Adult Education & Literacy Center's website.

## *Northwest Regional Literacy Resource Center*

Northwest Regional Literacy Resource Center (NWRLRC) serves the states of Alaska, Idaho, Oregon, Washington, and Wyoming. The effective use and integration of technology is a major effort of the Northwest Regional Literacy Resource Center. NWRLRC encourages literacy practitioners to use technology more effectively in adult basic skills instruction by providing information, referrals, training, published articles and software reviews.

The Resource Center relies on local instructors and students to evaluate a variety of technologies for use with adult basic skills students. The Resource Center publishes these software reviews in an

excellent annual ***Buyer's Guide***. The 1997 Edition of the guide can be searched on the Internet at **http://literacynet.org/nwrlrc/buyersguide/home.html**

Details of the review process are given on the website. See also the article titled "CriteriaUsed by Northwest Regional Literacy Resource Center For Evaluating Software." A summary of the procedure for putting together the 1997 guide follows.
On a regular basis, the NWRLRC solicits new software from educational software publishers for preview. This software is distributed to trained reviewers. The reviewers use the programs with their students for several weeks, record their comments, and rate the software based on the criteria set during the training sessions. Each software program is reviewed by at least three different reviewers, their comments are edited together and now make up the "Featured Software" section of the guide. Guide elements include ratings, instructional area, operating system and disk, price, description of content, navigation and structure, instructional applications, and evaluation.

Reviews are classified in the following curriculum areas:

- Language (grammar, mechanics, and spelling)
- Mathematics (basic arithmetic, algebra, and geometry)
- Life Skills (problem solving and other daily coping skills)
- Reading (phonics, vocabulary, reading in the content areas, comprehension, analysis, and speed)
- Science (reading and critical thinking with science topics)
- Social Studies (reading and critical thinking with social studies and citizenship preparation material)
- Writing (writing structure and content)

Each software product has been evaluated on its appropriateness to adult literacy programs. The instructional levels listed in the guide include the following: ESL (includes all levels), ABE (appropriate for adult basic skills programs), GED (prepares students specifically for the GED examinations), DE (developmental education, appropriate for college prepraration courses), and Family Literacy (specifically appropriate for family literacy programs).

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## Project Software

Our neighbor in Abingdon, Virginia, Kit Bieschke-Baker, provides a valuable service to adult educators through Project Software. If you are an adult teacher, tutor, or administrator who needs assistance identifying appropriate software for your program, then this web site **http://www.wcs.k12.va.us/departments/psoft/** can provide you with helpful resources.

Beginning with two Apple IIe computers eleven years ago, Kit has developed a program that now provides for the fieldtesting and evaluation of educational software by adult students and teachers to identify programs that are effective and that enhance learning.

Project Software is funded through Virginia Adult Education and Literacy Centers. The mission of Project Software is to provide information, resources, and training to educators who are interested in software programs and other technologies that may enrich the curriculum in their adult literacy, Pre-GED, GED, and workplace classes. You may also access the site through Virginia Adult Education and Literacy Centers' website at **http://www.vcu.edu/aelweb/.** Once you reach the website, click on Virginia Programs and then click on Project Software.

Project Software has developed the following publications which are distributed in print and published on the Internet: ***Project Software Evaluations (Written Reviews)***, ***Technology and Resource Directory for Adult Educators***, and ***Adult Education Software List.*** The the print and electronic versions of ***Project Software: Computer Program Evaluations*** (June 22, 1998) contain the following chapters:

***Project Software File Index***
***Tips for Smart Software Consumers***
***Student Software Evaluation Form***
***Instructor Software Program Evaluation Form***
***Integrated Learning System Evaluation***
***Literacy Software***
***Pre-GED Software***
***GED Software***
***Multi-Content Software Evaluations***
***Testing and Assessment***
***Technological Aids.***

Please call, fax, write, or e-mail to: **kit@naxs.com** if you have a request for information or publications.

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**Listed below is a sample of the programs currently being used in basic skills / literacy programs in North Carolina. They range from simple single concept programs to integrated systems.**

*New Reader Bookstore*
*Intelligent Tutor*
*(Pre-Algebra Concepts, Geometry Practice, Algebra II, etc.)*
*Electronic Money*
*American Heritage Talking Dictionary*
*Arithmetic Doctor: Fractions*
*Diascriptive Reading in Science*
*Basic Math Competence Skill Building*
*Word Wise*
*The Rosetta Stone*
*The Ready Course*
*The American Sign Language Dictionary*
*Street Atlas USA*
*Reading with Phonics is Fun*
*Personal Checking*
*Patient Tutor: Vowels, Sight Words, Short Vowels, etc.*
*Microsoft Encarta Encyclopedia*
*New Oxford Picture Dictionary*
*Mavis Beacon Teaches Typing*
*Grammar Games*
*PLATO*
*GED 2000*
*Pre GED 2000*
*GED for the PC*
*GED Interactive*
*Storybook Weaver Deluxe*
*American History*
*CD School House*
*Crossword Wizard*
*Four Language Reference Dictionaries:*
*Spanish/French/German/Italian*
*Math Stars*
*Word Drills Startup – Must Know Words*
*Hartley Skills Bank*

## *Services Provided by Volunteer Literacy Organizations*

Thousands of North Carolinians with literacy issues receive help from volunteer and community based literacy organizations every year. While the organizations range in size and available resources, helping people improve their reading, math, and employability skills is a high priority in every organization.

Most organizations have computers for administrative uses; several are acquiring information management systems, which require sophisticated personal computers. Many volunteer organizations have computers available for student use and actively encourage the acquisition of computer skills along with literacy skills.

Among the technology leaders in North Carolina's volunteer literacy organizations are Durham County Literacy Council, Blue Ridge Literacy Council, and Haywood Literacy Council. All three organizations have websites and e-mail capability.

**Durham County Literacy Council** (DCLC) is located in the City of Durham and on the World Wide Web at **http://durhamlit.home.mindspring.com/**. With a corporate gift of a dozen computers two years ago, Durham County Literacy Council furnished a computer laboratory for student use. A wide variety of software programs are available for adult students and their children. The programs range from ***Beginning Sounds: Phonics*** to ***Grammar Games*** to ***Mavis Beacon Teaches Typing*** to ***GED for the PC.*** Students also have access to the Internet.

Durham County Literacy Council operates an exciting initiative called the Parents' Part Program. Using educational software in addition to books, parents and children work together to practice phonics skills and word processing. They use the word processing programs to compose daily journals – thus improving writing skills. Both Laubach Literacy Action and Literacy Volunteers of America have awarded grants to the Council to support this important work which develops parenting skills and promotes family bonding along with the enhancement of literacy skills.

Lucy Haagen, Executive Director of DCLC, makes some excellent points on the use of volunteers in literacy programs. "Just as volunteer literacy programs have had to rely on capable volunteers in their tutoring operations, it's quite a challenge getting computer literate and computer interested individuals to provide the kind of support needed to use technology effectively in instruction." The Council is getting started with the VITAL (Volunteers in Technology and Literacy) Project with help from the Chamber of Commerce Leadership Durham Initiative. Lucy continues, "We've realized

that having the proper software and machines is only 20 percent of the challenge. Having those extra willing hands to help people use technology is the other 80 percent of the challenge."

**Blue Ridge Literacy Council** is located in the Industrial Skills Building on the campus of Blue Ridge Community College. The mission of the council is "to better the quality of life of residents of Henderson County by teaching the reading, writing, and oral communication of English to any adult in the county who is in need of or desires this basic education." As is true for most literacy programs in North Carolina, Blue Ridge Literacy Council's service to students requiring English as a Second Language instruction has increased in recent years.

The Council has a wide variety of software available to both ESL students and native speakers. Some of the programs include the following: ***New Reader Bookstore, Math Stars, American History, CD School House, Four Language Reference Dictionaries, 1997 Grolier Multimedia Encyclopedia, Language Explorer, Sound Sentences, Word Drills: Must Know Words***, and ***Transparent Language English Now!*** Students also have access to the Internet. Writing has been an important component of the literacy program at Blue Ridge Literacy Council. Students receive much encouragement and positive feedback – including publication of their writings by the Council. G'Anne Sparks, a former VISTA worker and volunteer with the Council, has worked closely with the writing program. G'Anne participated as a member of the Consortium of End Users, a project conducted by Southern LINCS. (For more information, see the article "Southern LINCS.")

Blue Ridge Literacy Council has recently established a presence on the Internet. Visit their newly constructed site at **http://www.litcouncil.org/**. From the web site, anyone can become a pen pal for an adult literacy student, allowing the student to develop writing skills and to learn about sending and receiving e-mail. There is also a wide variety of links of interest to tutors and to students. Among the many volunteer opportunities available through the Council is the opportunity to be a computer mentor who shows students basic computer skills and provides moral support and encouragement.

Haywood County Literacy Council was among the first volunteer literacy organizations – perhaps the first – to develop a formal written technology plan. Located in western North Carolina, Haywood County Literacy Council is dedicated to serving Haywood County residents, both children and adults, with one on one tutoring. Haywood County Literacy Council Technology Plan 1996 states:

> Increasing our technology base will allow both students and tutors to accelerate the learning process and become empowered. We continually seek to improve skills by providing appropriate tools that interest our students and tutors. These interests may include travel planning, family skills development, job seeking/keeping skills, games, and ESL programs. We are not limited by age or background.
>
> Time and energy will be spent training students, tutors and volunteers to use the computer as a tool for writing, learning, and exploring the world. Our greatest accomplishment will be realized when our tutors and students

(Continued on page 31)

# Using Laptop Computers in Creative Ways

## The Wake Tech Experience

Mary Lu Garrison

The Basic Skills Workplace staff at Wake Technical Community College ran a pilot program entitled "Basic Computer Literacy" for plant employees at a major manufacturing facility in Wake County this fall. The computers used in the program were laptop computers bought for the Continuing Education Department for off-site classes where no computers were available.

The overall goal of the course was to introduce basic computer skills needed for any computer or computer course to employees with limited or no prior computer experience. Two important objectives were to lessen students' anxiety concerning computers and to allow them to feel that they could successfully enroll in and complete computer courses.

Topics incorporated into the training included computer terminology, hardware components, proper turn-on and shutdown procedures, use of a mouse/tracker ball, use of specific keys on the keyboard, calling up particular software, and use of both disk drives.

At their plant employees participated in seven hours of training, conducted over the course of a week. Time was provided for instruction as well as individual practice. Overall, this pilot was a success. Plans call for the course to be offered again in January at another company.

The Wake Tech Basic Skills staff developed a curriculum for use with these laptops which will be used for successive programs.

For additional information, contact Mary Lu Garrison at (919) 715-3451 or Linda Ray at (919) 715-3456.

## Enhancing English as a Second Language Instruction

Sallie Stone and Sarah Lowdermelk

Creativity and flexibility in teaching are essential to success with English as a Second Language (ESL) students. Many creative teachers construct their own materials for classroom use.

When interviewed about instructional techniques, both Sallie Stone at Beaufort Community College and Sarah Lowdermelk at Catawba Valley Community College expressed great enthusiasm for the use of laptop computers with students. Since the computers are portable, instructors can take them to off campus sites. Students can work individually or in small groups on the computer while the teacher helps other students. This approach is especially helpful when there are many different skill levels in one class. Students build self-esteem as they gain computer skills as well as literacy skills. The prestige of being able to operate a computer is important.

## *Penetrating the Mysteries of the Internet*

"What the heck is the Internet?"
-- 5,000,000 confused adults

The generally accepted answer to the above question is "an international electronic network that connects government, military, commercial, and educational networks."

Internet 101 © 1997-98 Scott Cottingham on the Web at http://www2.famvid.com/i101/internet.html gives the more detailed answer to "What Is the Internet?"

> Sometime in the mid-1960's, during the Cold War, it became apparent that there was a need for a bombproof communications system. A concept was devised to link computers together throughout the country. With such a system in place large sections of the country could be nuked and messages could still get through.
>
> In the beginning, only government "think tanks" and a few universities were linked. Basically the Internet was an emergency military communications system operated by the Department of Defense's Advanced Research Project Agency (ARPA). The whole operation was referred to as ARPANET.
>
> In time, ARPANET computers were installed at every university in the United States that had defense related funding. Gradually, the Internet had gone from a military pipeline to a communications tool for scientists. As more scholars came online, the administration of the system transferred from ARPA to the National Science Foundation. Years later, businesses began using the Internet and the administrative responsibilities were once again transferred

In the 1990s, the Internet was opened up to anyone with a sufficiently powerful personal computer and a phone line. The speed with which information is delivered is truly amazing. Because anyone with access to the necessary software and machinery can "publish" almost anything they want to on the Internet, it is important to exercise discretion and to evaluate such factors as accuracy, reliability, and truthfulness of materials on the web. Researchers and librarians among others are developing guidelines for evaluating the credibility of websites (for example, see D. Scott Brandt's document apearing at http://thorplus.lib.purdue.edu/~techman/eval.html ).

Questions about reliability of information found on the Internet aside, this electronic resource has revolutionized the way the world accesses information and does business. Just as computer literacy has become increasingly important, the ability to access and use the Internet will soon become a skill expected by employers and society at large.

Many basic skills educators and researchers are writing guides to Internet use and developing curricula to assist students in acquiring this important skill. One excellent effort is the curriculum developed by Ann Parkinson and Steven Schmidt of the College of The Albemarle (COA) in Elizabeth City, North Carolina. One of the first community colleges in North Carolina, COA serves seven counties in northeastern North Carolina. The College of The Albemarle Foundation provided funding for the development of ***Introduction to the Internet / CD-ROM Research.***

***Introduction to the Internet / CD-ROM Research*** is a one credit Adult High School course designed to help someone with little or no computer background gain the skills necessary to do research using the Internet and CD-ROMs. Basic skills instructors can use components of this course to teach all their students how to use these new technologies. Before beginning the course students should know how to use a mouse and know how to perform Windows operations such as using a pull-down menu and scrolling.

Dr. Parkinson and Mr. Schmidt presented the results of work using this curriculum at the 1998 Basic Skills/HRD Conference in Raleigh, North Carolina. They shared course notes with participants and demonstrated techniques used in this computer-based course. The course contains five units: "Introduction to the Internet and the World Wide Web," "Explore the World Wide Web," "Electronic Mail," "Introduction to CD-ROM Research," and "Course Evaluation."

No tests are given. Grading is based on the quality of work students produce in completing study guides, Netscape Tutorial questions, 12 web site research guides, 3 CD-ROM research guides, and a course evaluation paper. For more information contact Steven Schmidt, College of the Albemarle, PO Box 2327, Elizabeth City, NC 27906-2327. Phone number is 252-335-0821 extension 2322. E-mail address is sschmidt@albemarle.cc.nc.us.

## *Sources of Technical Assistance*

**Nancy Massey**

There is so much information written about technology. How is the adult literacy / basic skills practitioner to sort through it all? One of the best resources is the librarian or media specialist in your organization or community. With Internet access one can ask for help from librarians and information specialists all over the country and the world.

Here are some of the best print resources I have discovered in three years of active research on the Internet. They vary in form from articles in journals to books to entire newsletters to short articles found on various websites. All these materials are available for loan from NC Literacy Resource Center. If you have difficulty locating any of this information, please contact me at the Center (800-553-9759 in NC only or 919-733-7051 extension 501).

### *National Center of Adult Literacy (NCAL) Resources*

Located at the University of Pennsylvania, the National Center on Adult Literacy provides an excellent service to the profession by producing valuable documents on the uses of technology in adult literacy programs. To reach NCAL, visit their website at http://www.literacyonline.org or telephone 215-898-2100.

***Assessing Lifelong Learning Technology: A Guide for Choosing and Using Technology for Adult Learning*** by Regie Stites (January 1998) is a joint production of NCAL and the North Central Regional Technology in Education Consortium (NCRTEC). "The report begins with a discussion of the nature of adult (as opposed to childhood) learning and the potential roles that technology can play in helping to create learning environments that are ideally suited to the needs and intersts of adult learners." The conclusion highlights factors which may help or obstruct the effective application of technology to adult learning. An article appearing in NCAL's newsletter *Connections* Fall 1997 focuses on the creation of learning environments for adults ("Creating Learning Environments for Adults: The Role of Technology" by Regie Stites).

Hot off the press and the Internet is ***Technology, Basic Skills, and Adult Education: Getting Ready and Moving Forward*** (Information Series No. 372) edited by Christopher E. Hopey. Published by ERIC Clearinghouse on Adult, Career, and Vocational Education and several departments of Ohio State University, this book is a must read and must have item for anyone trying to pursue the use of technology in adult education. Well thought out and clearly and concisely written, the book features the thoughts of many of the country's leaders in applications of technology to adult literacy. Authors include Lynda Ginsburg, Regie Stites, Terilyn Turner, John P. Sabatini, John Fleischman,

David Rosen, Mary Lovell, and editor Hopey. The document makes a strong case for using technology in adult education and then proceeds to show how to get started with that technology.

## National Institute for Literacy

The National Institute for Literacy (NIFL) was created as a part of the 1991 Literacy Act by a bipartisan congressional coalition to be the hub of national literacy efforts. By serving as a resource for the literacy community, the Institute assists in addressing urgent national priorities--upgrading the workforce, reducing welfare dependency, raising the standard of living, and creating safer communities. Through its publications and the maintenance of the Literacy Information and Communication System (LINCS), NIFL distributes information about literacy resources in the nation. Visit the website at http://novel.nifl.gov/ or call (202) 632-1500 for information.

## Literacy Resource Centers

North Carolina Literacy Resource Center was created as a result of the National Literacy Act of 1991. Most other states have Literacy Resource Centers (LRC) or state agencies that are responsible for focusing on adult literacy concerns. All of the centers are linked to the National Institute for Literacy through a system of four regional technology hubs. Detailed information on this system is available in the article entitled "Southern Links."

All of the LRCs focus on the use of technology in adult basic education. Minnesota has done exceptional work in the area of technology training. As Minnesota's state literacy resource center, the Literacy Training Network (LTN) provides professional development opportunities and resources to Minnesota's literacy practitioners. Using a nationally recognized model train-the-trainer program, the goal of LTN is to improve the quality and appropriateness of learning opportunities offered to adults who participate in Adult Basic Education (ABE) programs. The Literacy Training Network offers technical assistance and support to literacy programs in their development of technology plans and implementation strategies. To that end, LTN provides website hosting services to literacy programs in Minnesota that otherwise couldn't have a website in addition to information and consultation services, and training support. Specific training in HTML and website design is available upon request. The state has a history of exceptional collaboration among state and local agencies, which is reflected in the offerings on the website.

Visit Minnesota's Electronic Literacy Resource System at http://www.mlrc.stthomas.edu/. Of special interest among their publications is an article written by Virginia Heinrich, Library Services Specialist, entitled "Professional Development Using the Internet."

## National Center for Education Statistics

The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. The agency produces publications to help in addressing high priority education data needs. NCES published,

***Technology @ Your Fingertips: a guide to implementing technology solutions for education agencies and institutions*** in October 1997. Although designed for K-12 organizational use, the information has tremendous value for adult literacy programs. The book outlines a process for getting the best possible technology solution for individual organizations. The publication describes the steps necessary to identify technology needs, to consider options, to acquire the technology, and to implement a technology solution that will serve the program today and provide a foundation for the organization's technology in the future. The document is very detailed and contains a helpful glossary and bibliography. To view the publication on the WWW, go to http://nces.ed.gov/pubs98/tech/index2.htm. To request a free print copy, call 1-877-433-7827.

## Newsletters

Newsletters published by adult literacy organizations often provide excellent information on technology progress in other states as well as nationally.

***Bright Ideas*** is a quarterly newsletter providing a place to share innovative practices, new resources and information within the field of adult education. The System for Adult Basic Education Support (SABES) publishes ***Bright Ideas*** for the Massachusetts adult education community with funding from the Massachusetts Department of Education. Volume 8, Number 1 (summer 1998) focuses on technology. The cover article is "Memory Allocation Errors, Indeed" by Lou Wollrab. Other interesting articles include "Technology in the West: A Model for Addressing Needs of ABE Programs," "Introducing Virtual Visits," "Eastern LINCS: The Internet with a Human Face," "Technology Kit: Try Before You Buy," and "Mountains, Math, Slave Ships, and the Internet: Linking Adult Education and the World Wide Web." To obtain a copy, contact Lenore Balliro, Editor, Bright Ideas, 44 Farnsworth Street, Boston, MA 02210 or phone 617-482-9485. Visit SABES on the Web at http://www.sabes.org/

***Regional Resource Roundup*** is the quarterly newsletter of Northwest Regional Literacy Resource Center (NWRLRC). NWRLRC serves the states of Alaska, Idaho, Oregon, Washington, and Wyoming. The effective use and integration of technology is a major effort of NWRLRC. The center encourages literacy practitioners to use technology more effectively in adult basic skills instruction by providing information, referrals, training, and published articles and software reviews (Note: More information on NWRLRC appears in the article "Software Concerns" in this publication.)

A regular feature of the ***Roundup*** is "Focus on Technology." Topics covered in the feature range from software reviews written by Catherine Cantrell, Technology Coordinator at NWRLRC, to reports on innovative programs in the five-state region. An especially useful article appeared in the Winter 1997 issue. It is "More Than Software: Using Everyday Applications to Teach Basic Skills" by Catherine Cantrell. To access this article and lots more excellent information, go to http://literacynet.org/nwrlrc on the Internet or call 206-587-4987 in Seattle. Mailing address for Northwest Regional Literacy Resource Center is 2120 S. Jackson Street, Seattle, Washington 98144

The National Clearinghouse for ESL Literacy Education (NCLE) publishes ***NCLEnotes*** twice yearly. The Summer 1998 issue (volume 7, number 2) contained an excellent article "Software

Choices for ESL Teaching" by Susan Gaer, Santa Ana College, School of Continuing Education. An expanded article entitled "Q&A: Using Software in the Adult ESL Classroom" appears as an ERIC Digest for March 1998. To reach NCLE, visit their website at http://www.cal.org/ncle or write to NCLE, Center for Applied Linguistics, 4646 40th Street, NW, Washington, DC 20016-1859. Telephone number is 202-362-0700.

## *Institute for the Study of Adult Literacy*

In the early 1990s, Penn State University established the Institute for the Study of Adult Literacy (ISAL) as part of the College of Education. Many useful publications grew out of the Institute. ***A Guide to Developing Tools to Evaluate Adult Literacy Courseware*** by Karen Droms and Dr. Eunice N. Askov provides helpful guidelines for selecting courseware for use in adult literacy programs. Although published in 1992, the document provides an excellent framework for today. The format of the paper follows an instructional design process. The steps in the process include analysis, design, development, and implementation. Each section begins with a list of questions to be answered in that particular step. The questions are based upon experience rather than research because of the lack of empirical research about what makes courseware effective. To learn more about ISAL, visit http://www.ed.psu.edu/isal/ or phone
(814) 863-3777

## *Educational Resources Information Center (ERIC)*

"Funded by the Office of Educational Research and Improvement (OERI, part of US DOE), the ERIC system consists of 26 clearinghouses devoted to abstracting and indexing the world of education-related knowledge. From the main ERIC site, you may search the ERIC database (nearly a million entries and growing), print off ERIC Digests and connect to the two clearinghouses nearest and dearest to the adult literacy field: the Clearinghouse on Adult, Career and Vocational Education (ACVE) and the National Clearinghouse on ESL Literacy Education (NCLE)." This apt and concise description of ERIC is borrowed from the "Connections to Other s" page of the SABES site referenced in the section on newsletters in this article.

Some truly helpful ERIC Digests from the Adult, Career, and Vocational Education Clearinghouse include the following.

ERIC Digest #168: "Distance Learning, the Internet, and the World Wide Web" by Sandra Kerka, 1996.

ERIC Digest #196: "Adult, Career, and Vocational Education: An Internet Guide" by Judith O. Wagner, 1998

ERIC Digest #197: "Technology and Adult Learning: Current Perspectives" by Susan Imel, 1998.

See as well, ERIC Trends and Issues Alert: "Web-Based Training" by Susan Imel, 1997. To reach ERIC on the Web, visit http://www.accesseric.org:81/.

Of special interest to community college personnel is the ERIC Clearinghouse for Community Colleges accessible on the Web at http://www.gseis.ucla.edu/ERIC/eric.html. They may also be

reached at ERIC Clearinghouse for Community Colleges, 3051 Moore Hall, Box 951521, University of California-Los Angeles, Los Angeles, CA 90095-1521 or by calling 1 (800) 832-8256. Their Summer 1998 ***Information Bulletin*** focused on technology in community colleges. Kalpana Shankar's "Internet Resources for Community College Practitioners" published as a Digest from the clearinghouse contains much valuable information (http://www.gse.ucla.edu/ERIC/digests/dig9803.html).

## *Massachusetts State ABE Technology Plan Teacher Competencies*

The fourth draft of the proposed "ABE Teacher Competencies for Technology" came to our attention this summer. There are four levels of competencies for the following categories: hardware, application software, Internet software, management, and getting help. The competencies are tin, bronze, silver, and gold. Below is an example of a competency – one on using spreadsheets.

| Competency | Tin | Bronze | Silver | Gold |
|---|---|---|---|---|
| Spreadsheets | Can enter values into an open spreadsheet, understand 2-D nature of data | Can enter data into cells; use simple formulas (i.e. @sum) | Can use basic formulas, basic arithmetic routines; set up spreadsheets for appropriate tasks | Can use macros, import/ export data; can understand and teach spreadsheet design |

Plans are under way to load this document on the SABES website (referenced in the section on "Newsletters") at http://www.sabes.org/.

## *Office of Technology Assessment*

An excellent one-page summary of the "Advantages of Technology for Literacy Programs" appears on page 203 of the book, ***Adult Literacy and New Technologies: Tools for a Lifetime***, published in 1993 by the Office of Technology Assessment, U.S. Congress. NC LRC staff have often used this page as a guide for talks on the importance of technology in adult literacy programs. We used this page most recently at the annual Basic Skills Conference held in July in Raleigh. The six major advantages are listed below:

- Recruiting and retaining learners
- Improving curriculum
- Meeting staff development challenges
- Enhancing assessment and evaluation
- Streamlining administration and management
- Augmenting funding and coordination.

## *Article by Phil Agre*

We came across this article on a listserv we subscribe to. "How to Help Someone Use a Computer" contains 18 excellent points to remember when trying to teach someone computer skills. The article can be found at http://dlis.gseis.ucla.edu/people/pagre/ along with several other interesting articles. Key points in this article include the reminders that "nobody is born knowing this stuff" and "if it's not obvious to them, it's not obvious." Contact Philip E. Agre at Graduate School of Education and Information Studies, University of California- Los Angeles, Los Angeles, California 90095-1520.

**HELPFUL HINT: Explore Links!**
**Explore the links on various websites. This is an amazing technique for getting to sometimes interesting – even fascinating sites.**

(Southern LINCS continued)

The Arkansas Adult Learning Resource Center presents an annual Technology

Institute for practitioners. This year's topic was "Bridging the Gap." Mary Siedow attended in order to assess the possibility of North Carolina's conducting a similar institute for instructors here.

Louisiana State Literacy Resource Center is working in collaboration with the Louisiana Department of Public Safety and Corrections on a Life Skills for Prisoners grant. Part of the project is to create a curriculum for inmates which integrates basic skills. The first volume of a 13 volume, 100-hour curriculum has just been uploaded onto their web site under "Corrections Education."

(Volunteers continued)

use the Internet to communicate with email penpals from across the country and around the world.

The Council has made good progress with its plan. Staff members have participated in training and have contributed to efforts to provide Internet training. Paul Galchus attended training conducted by Melody Schneider for NC Literacy Resource Center in June and July 1997. His lesson on listservs can be found under the Internet Lesson Plans section of the Teach and Learn portion of NC LRC's website located at **http://www.nclrc.state.nc.us/NCLRC/home/**. Haywood County Literacy Council's own website address is **http://www.main.nc.us/haylit/**.

NC Literacy Resource Center
NC Community College System
200 West Jones Street
Raleigh, NC 27603
919-733-7051
http://www.state.nc.us/NCLRC/home

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